

5

ABSTRACT

A method and apparatus for managing a dynamic assignment of resources in a storage system. In one aspect, a storage system includes a plurality of storage devices, a plurality of controllers that each is coupled to at least one of the plurality of storage devices and controls access to the one of the plurality of storage devices, a memory that is globally accessible to each of the plurality of controllers; first means for creating in the memory a global table that stores information that specifies dynamic assignments of resources in the storage system, and second means for creating a local table in at least one of the plurality of controllers that includes all of the information stored in the global table. In another aspect, the storage system stores information written by a data processing system that accesses units of information in the storage system using a logical volume address, and the local and global tables are indexed by the logical volume address. In another aspect, each of the plurality of controllers includes updating means, responsive to the one of the plurality of controllers being powered up, for automatically updating the local table in the one of the plurality of controllers. In another aspect, the system includes means for verifying that the information stored within the local tables is consistent with the information stored within the global table.